

### **Abstract of the Disclosure**

A sensor for detecting bacteria in a perishable food product includes a gas-permeable material including a pH indicator carried by a housing for placement in a spaced relation to food product or packaging surfaces for effectively detecting a change in carbon dioxide levels within the package. One acid-base pH indicator comprises a mixture of Bromothymol Blue and Methyl Orange with the sensor having an initial green color indicating an alkaline pH of approximately 7.2. The indicator turns orange with a decrease in pH resulting from a presence of carbon dioxide due to bacterial growth, such an indicator reflecting a universally recognizable safe to caution color change.